

REMARKS

Claims 1-3, 5-12, 15, 16, 18, 19, 22-24, 26, 27, and 29 are presently pending and stand rejected.

Claims 1 and 22 were rejected under 35 U.S.C. § 103(a) as being obvious from IBM, Copeland, and MacInnis. Claim 1 recites, among other limitations, "concatenating at least one data bit onto each one of the plurality of color components split from said pixel; DC balancing each one of the plurality color components that were split from the pixel and concatenated with at least one data bit, wherein DC balancing further comprises adding at least one bit to each of said plurality of color components split from the pixel". Assignee respectfully submits that the combination of IBM, Copeland, and MacInnis do not teach the foregoing. Claim 5 recites, among other limitations, "audio data".

The Office Action indicates that "IBM Technical disclosure describes an interface" that includes:

"1) A multiplexer for concatentating at least one data (e.g., that which represents horizontal sync, vertical sync, and/or serial data channel signal/command data) the red, green, blue and

2) A block code arrangement for balancing the entire multiplexed data stream, via the utilization only 'balanced' codes, thereby eliminating low frequencies from the spectrum' while permitting 'AC balancing'.

"Although, the concept of adding additional bits to an existing sequence/component in order to proper DC balance

it was known to add additional bits to ensure proper DC balancing of the encoded signal for proper AC coupling the examiner nonetheless incorporates Copeland".

"Regarding the splitting a pixel into a plurality of color components, is not disclosed by the combination of IBM/Copeland, however, such representation/splitting of pixels is conventional practice to represent a pixel by the 3 basic color components (RGB), although this is convention in the art, the Examiner incorporates MacInnis ... Since IBM discloses the use of RGB components, and that a source may be from a composite signal, this would require receiving/registering, then splitting in order to access the color components."

Assignee respectfully maintains traverse of the rejection because none of the references teach "*concatenating at least one data bit onto each one of the plurality of color components split from said pixel*".

The IBM reference, for example shows multiplexing, i.e., combining, Red, Green, Blue, Intensity, HSynch, VSynch, and data.

"The CRT Multiplexer disclosed herein uses a four/six block code [\*] to multiplex signals over a single fiber-optic cable. For each block of six bits transmitted, three bits are always at a one level and three bits are at a zero level. This feature eliminates low frequencies from the spectrum, permits AC coupling and provides for a large dynamic range. As discussed in [\*], there are twenty combinations that satisfy the balance requirement. Of these combination sixteen are used for video data, leaving four additional code combination for sync and other signaling."

The IBM multiplexer is capable of outputting 20 possible six bit code words, sixteen of which correspond to color (red, green, blue, and intensity), and four other codes for Hsync, Vsync, and other data. IBM notes that "The typical interface for color includes video (red, green, blue, and intensity for 16 colors)". Accordingly, IBM maps the 16 colors to different code words that already include equal number of 1's and 0's. Of the remaining four code words, one is allocated to byte sync, two codes are allocated to Hsync, and one is allocated to Vsync. IBM, p 3 (see paragraphs 2, 3, 4).

Although IBM teaches mapping color combinations of red, green, blue, and intensity to ones of 20 6-bit words, IBM does not even teach *concatenating* bits to the colors, or "DC balancing ... wherein DC balancing further comprises adding at least one bit" to the colors.

The Office Action indicates, however, that "it would have been clearly obvious ... to modify the IBM disclosure ... to add additional bits as done conventionally (Copeland discussion on Prior Art) for the advantages [DC Balancing] as noted above. Assignee respectfully traverses that it would be obvious to modify the IBM disclosure. Since each of the code words output from the MUX already includes three ones and three zeros, there would be no need to add additional bits for DC balancing.

Assignee also traverses the combination of IBM/Copeland and MacInnis because IBM teaches away from MacInnis. It is noted that IBM's mapping of the sixteen colors (combining red, green, blue, and intensity) to 16 different 6 bit codes "eliminates low frequencies from the

spectrum, permits AC coupling and provides for a large dynamic range." These properties would not be present if IBM were modified to split the red, green, and blue components. Accordingly, Assignee respectfully traverses the rejection to claims 1 and 22, and requests withdrawal of the rejection.

Claim 5 was rejected from the combination of IBM, Copeland, MacInnis and XP-002202474. The Office Action indicates that "it would have been obvious ... to modify IBM/Copeland ... by linking audio and video data (color component) together as done by XP002202474...".

Assignee respectfully traverses because it would not be possible to modify IBM as suggested by the Office Action. As noted above, all 20 of the possible code words are already allocated in IBM. There would be no code word that could be mapped to audio data. Accordingly, Assignee respectfully traverses the rejection to claim 5, and requests withdrawal of the rejection.

Finally, regarding the "Response to Arguments", Assignee maintains that there is no absolutely no legal requirement that an Applicant establish that a limitation "was not possible prior to the invention".

Assignee also maintains that in *KSR Int'l Co. v. Teleflex Inc*, 550 U.S. \_\_\_\_ (2007), the combination of references explicitly taught every *limitation* in the claim ("Asano taught everything claim in claim 4 except ... . That additional aspect was revealed in sources such as the '068 patent and the sensors used by Chevrolet"). At issue was whether the references could be properly combined.

The citations provided by Office Action, when read in proper context do NOT hold that the combination of references do not have to explicitly teach all the limitations of a claim for an obviousness rejection.

For example, the Office Action states that:

In their decision the Supreme Court stated "To determine whether there was an apparent reason to combine known elements in a way a patent claims, it will often be necessary to look to interrelated teachings of multiple patents; to the effects of demands known to the design community or present in the marketplace; and to the background knowledge possessed by a person having ordinary skill in the art. To facilitate review, this analysis should be made explicit. But it need not seek out precise teachings directed to the challenged claim's specific subject matter, for a court can consider the inferences and creative steps a person of ordinary skill in the art would employ."

Although the Office Action places emphasis on the last sentences, noted the first sentence: "To determine whether there was apparent reason to combine known elements in a way a patent claims ...". In the underlined sentences "this analysis", refers to "determine[ing] whether there was apparent reason to combine known elements in a way a patent claims ...".

The Office Action also cites:

"The obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicitly content of issued patents. The diversity of inventive pursuits and of modern technology counsels against limiting the analysis in this way. In many fields it may be that there is little discussion of obvious techniques or combinations, and it often may be the case that market demand, rather than scientific literature, will drive design trends. Granting patent protection to advances that would occur in the ordinary course without real innovation retards progress and may, in the case of patents combining previously known elements, deprive prior inventions of their value or utility. "

Assignee emphasizes that last sentence "in the case of patents combining previously known elements, deprive prior inventions of their value or utility."

**CONCLUSION**

For at least the foregoing reasons, Assignee respectfully submits that each of the pending claims are allowable and Examiner is respectfully requested to pass this case to issuance.

Moreover, the Office Action makes statements regarding the cited references that are not addressed because they are moot in view of the foregoing arguments/amendments. Assignee explicitly reserves the right to address these statements should the need arise.

The Commissioner is hereby authorized to charge additional fees or credit overpayments to the deposit account of McAndrews, Held & Malloy, Account No. 13-0017.

Dated: June 15, 2009

Respectfully submitted,



Mirut Dalal  
Reg. No. 44,052  
Attorney for Applicants

McAndrews, Held & Malloy, Ltd.  
500 West Madison Street  
Chicago, Illinois 60661

Telephone: (312) 775-8000  
Facsimile: (312) 775-8100